

REMARKS

Claims 1-9, 11-17, 20-29, and 31-60 were pending. Claims 1, 26, 28, and 52 have been amended. Claims 20-25, 27, 32-51, and 57-60 have been canceled. Claims 61-63 have been added. Claims 1-9, 11-17, 26, 28, 29, 31, 52-56, and 61-63 are pending.

Claims 1-6, 11-13, 28, 31, and 52-54 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,130,448 to Bauer et al. in view of U.S. Pat. No. 5,821,532 to Beaman et al. Reconsideration of this rejection respectfully is requested.

Claim 1 recites a “cover for an image sensor array” comprising “a plate formed of substantially transparent material and secured adjacent to an upper surface of and covering the image sensor array.” The sensor array is “sealed by said plate,” and the plate has “a plurality of surfaces forming a lensing structure.” At least one of the plurality of surfaces is “contoured into a lensing surface capable of changing imaging characteristics.” The cover also includes “a mounting structure extending from an upper surface of the plate and adapted to secure a prefabricated lens system to the plate above the lensing structure.”

Bauer et al. discloses a cover plate with a lens. The Office Action admits that Bauer et al. does not disclose a cover that also includes “a mounting structure extending from an upper surface of the plate and adapted to secure a prefabricated lens system to the plate above the lensing structure.”

The Office Action cites Beaman et al. as supplying a mounting structure 60 extending from an upper surface of plate 25 and adapted to secure a prefabricated lens system to the plate about the lensing structure. Applicant respectfully disagrees. Beaman et al. does not teach or suggest “a mounting structure extending from an upper surface of the plate and adapted to secure a prefabricated lens system to the plate above the lensing structure.” Instead, the “mounting structure 60” discussed in the Office Action, referred to in Beaman et al. as the lens arrangement 62, is “a prefabricated lens system.” Beaman et al. does not disclose a separate “mounting structure.” More specifically, referring to FIG.

6, lens arrangement 62 is combined with the optics assembly 40. See col. 3, lines 62-64. Beaman et al. does not disclose “a mounting structure extending from an upper surface of the *plate* and adapted to secure a prefabricated lens system *to the plate* above the lensing structure.”

Further, Applicant respectfully urges that Bauer et al. and Beaman et al. can not properly be combined as proposed in the Office Action to obtain the invention of claim 1. As discussed above, neither Bauer et al. nor Beaman et al. discloses “a mounting structure extending from an upper surface of the plate.” Further, Beaman et al. discloses that lens arrangement 62 is combined with the optics assembly 40. The arrangement is advantageously smaller and has fewer interfaces than the prior art arrangement of FIG. 5, in which lens assembly 52 appears mounted directly to lens cover 57. See col. 3, lines 56-65. Thus, rather than suggesting “a mounting structure extending from an upper surface of the plate,” Beaman et al. teaches away from mounting lens assembly 52 to lens cover 57.

Claim 1 is patentable over the proposed combination of Bauer et al. in view of Beaman et al. Claims 2-13 depend directly or indirectly from claim 1 and are patentable over Bauer et al. in view of Beaman et al. for at least the same reasons.

Claim 28 recites a method of making “an image sensor array having a lensing cover plate.” The method comprises, *inter alia*, “forming a lensing structure on a lensing surface of a flat, substantially transparent cover plate by contouring said lensing surface of the cover plate into a lensing element to form said lensing cover plate,” and “securing a mounting structure to an upper surface of the plate, said mounting structure being adapted to connect a prefabricated lens system to the plate above the lensing structure.”

Bauer et al. discloses a method of making an imager having a cover plate with a lens. The Office Action admits that Bauer et al. does not disclose “securing a mounting structure to an upper surface of the plate, said mounting structure being adapted to connect a prefabricated lens system to the plate above the lensing structure.”

The Office Action cites Beaman et al. to supply what is missing, asserting that Beaman et al. discloses a mounting structure 60 that extends from an upper surface of plate 25 that is adapted to secure a prefabricated lens system to the plate above the lensing structure. Beaman et al. does not teach or suggest, however, a method of forming an image sensor array with a cover plate that includes “securing a mounting structure to an upper surface of the plate, said mounting structure being adapted to connect a prefabricated lens system to the plate above the lensing structure.” Beaman et al. discloses that the lens arrangement 62 is combined with the optics assembly 40. See FIG. 6 and col. 3, lines 62-64. Beaman et al. does not teach or suggest “securing a mounting structure to an upper surface of the *plate*, said mounting structure being adapted to connect a prefabricated lens system to the plate above the lensing structure.”

Further, Applicant respectfully urges that Bauer et al. and Beaman et al. can not properly be combined as proposed in the Office Action to obtain the inventive method of claim 28. Applicant notes, as discussed above, that neither Bauer et al. nor Beaman et al. discloses “securing a mounting structure to an upper surface of the plate, said mounting structure being adapted to connect a prefabricated lens system to the plate above the lensing structure.” Further, Beaman et al. teaches that combining the lens arrangement 62 with the optics assembly 40 provides an arrangement that is smaller and has fewer interfaces than the prior art arrangement of FIG. 5, in which lens assembly 52 appears mounted directly to lens cover 57. See col. 3, lines 56-65. Thus, Beaman et al. teaches away from, and does not suggest, a method that includes “securing a mounting structure to an upper surface of the plate, said mounting structure being adapted to connect a prefabricated lens system to the plate above the lensing structure.”

Claim 28 is patentable over the proposed combination of Bauer et al. in view of Beaman et al. Claim 31 depends from claim 28 and is patentable over Bauer et al. in view of Beaman et al. for at least the same reasons.

Claim 52 recites a method of making a camera system that comprises, *inter alia*, “contouring a portion of a flat cover plate to form a cover plate having a lensing structure,” and “securing a mounting structure to an upper surface of the plate, said mounting structure being adapted to connect a prefabricated lens system to the plate mounting above the lensing structure.”

Bauer et al. discloses a method of making a camera system having a cover plate that includes a lens. As admitted in the Office Action, Bauer et al. does not disclose “securing a mounting structure to an upper surface of the plate, said mounting structure being adapted to connect a prefabricated lens system to the plate mounting above the lensing structure.”

The Office Action cites Beaman et al. and asserts that Beaman et al. discloses a mounting structure 60 that extends from an upper surface of plate 25 and is adapted to secure a prefabricated lens system to the plate above the lensing structure. Beaman et al. does not teach or suggest, however, a method of forming a camera system by “securing a mounting structure to an upper surface of the plate, said mounting structure being adapted to connect a prefabricated lens system to the plate mounting above the lensing structure.” Instead, Beaman et al. discloses that the lens arrangement 62 is combined with the optics assembly 40. See FIG. 6 and col. 3, lines 62-64.

Further, Applicant respectfully urges that Bauer et al. and Beaman et al. can not properly be combined as proposed in the Office Action to obtain the inventive method of claim 52. Neither Bauer et al. nor Beaman et al. discloses “securing a mounting structure to an upper surface of the plate, said mounting structure being adapted to connect a prefabricated lens system to the plate above the lensing structure.” Further, Beaman et al. teaches that combining the lens arrangement 62 with the optics assembly 40 provides an arrangement that is smaller and has fewer interfaces than the prior art arrangement of FIG. 5, in which lens assembly 52 appears mounted directly to lens cover 57. See col. 3, lines 56-65. Thus, Beaman et al. teaches away from, and does not suggest, a method that

includes "securing a mounting structure to an upper surface of the plate, said mounting structure being adapted to connect a prefabricated lens system to the plate above the lensing structure."

Claim 52 is patentable over the proposed combination of Bauer et al. and Beaman et al. Claims 53 and 54 depend directly from claim 52 and are patentable over Bauer et al. and Beaman et al. for at least the same reasons.

Claims 15-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bauer et al. in view of Beaman et al., further in view of U.S. Pat. No. 3,620,149 to Ogihara. Reconsideration of this rejection respectfully is requested.

Claims 15-17 depend indirectly from claim 1. Claim 1 is patentable over Bauer et al. in view of Beaman et al., as has been advanced above. Ogihara has not been cited against claim 1 and, if cited, would not cure the deficiencies of Bauer et al. in view of Beaman et al. Ogihara has been cited as disclosing a threaded-type coupling for coupling a lens barrel with a camera body. Ogihara does not provide the missing feature of "a mounting structure extending from an upper surface of the plate and adapted to secure a prefabricated lens system to the plate above the lensing structure." Claim 1 and dependent claims 13-15 are patentable over the proposed combination of Bauer et al. in view of Beaman et al., further in view of Ogihara.

Applicant urges that independent claims 1, 28, and 52 are generic. As indicated in the Election/Restriction Requirement mailed September 29, 2003, and as provided by 37 C.F.R. § 1.141, upon allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim. Claims 7-9 depend from claim 1, and claims 55-56 depend from claim 52. Claim 26 has been amended and is allowable. Consideration of pending claims 7-9, 26, and 55-56 is respectfully requested.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

By 

Thomas J. D'Amico

Registration No.: 28,371

Peter McGee

Registration No.: 35,947

DICKSTEIN SHAPIRO MORIN &
OSHINSKY LLP

2101 L Street NW

Washington, DC 20037-1526

(202) 785-9700

Attorneys for Applicant